This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

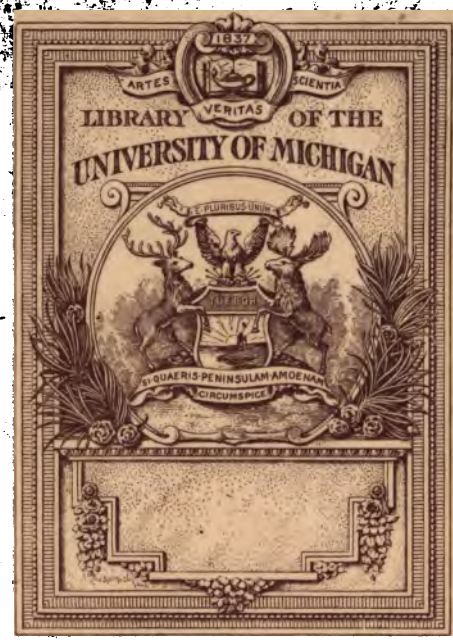
Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

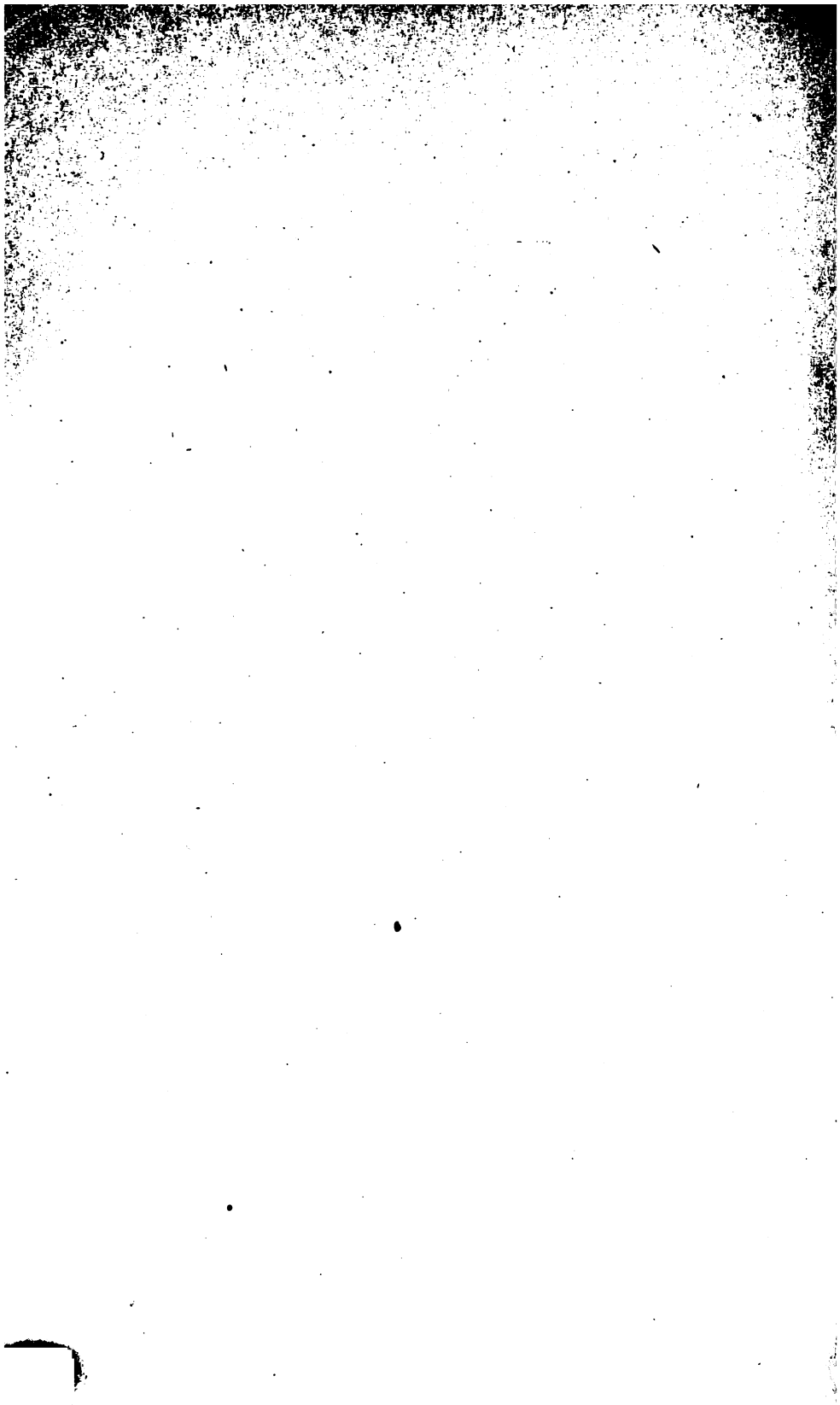
NK
4360
.B23

B 1,353,956

SALT GLAZED STONEWARE

By EDWIN ATLEE BARBER


1837
ARTES
VERITAS
SCIENTIA
LIBRARY OF THE
UNIVERSITY OF MICHIGAN
E PLURIBUS UNUM
SI QUAERIS PENINSULAM AMOENAM
CIRCUMSPICE



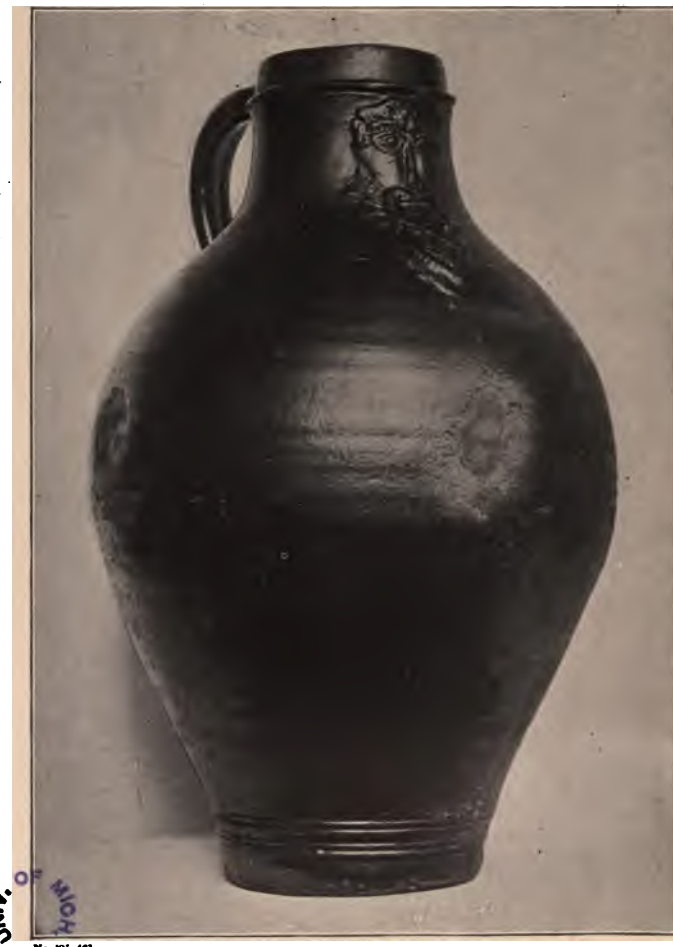
SALT GLAZED STONEWARE

PRIMERS OF ART

Tin Enamelled Pottery,
By Edwin AtLee Barber, A. M., Ph. D.

Salt Glazed Stoneware,
By Edwin AtLee Barber, A. M., Ph. D.

Other Volumes in Preparation



No. '05-461.

BROWN STONEWARE "BARTMANN" (16¾ inches in height).
Bouffioux, Early Eighteenth Century.

ART PRIMER

PENNSYLVANIA MUSEUM AND SCHOOL
OF INDUSTRIAL ART, PHILADELPHIA

SALT GLAZED STONEWARE

GERMANY, FLANDERS, ENGLAND
AND
THE UNITED STATES

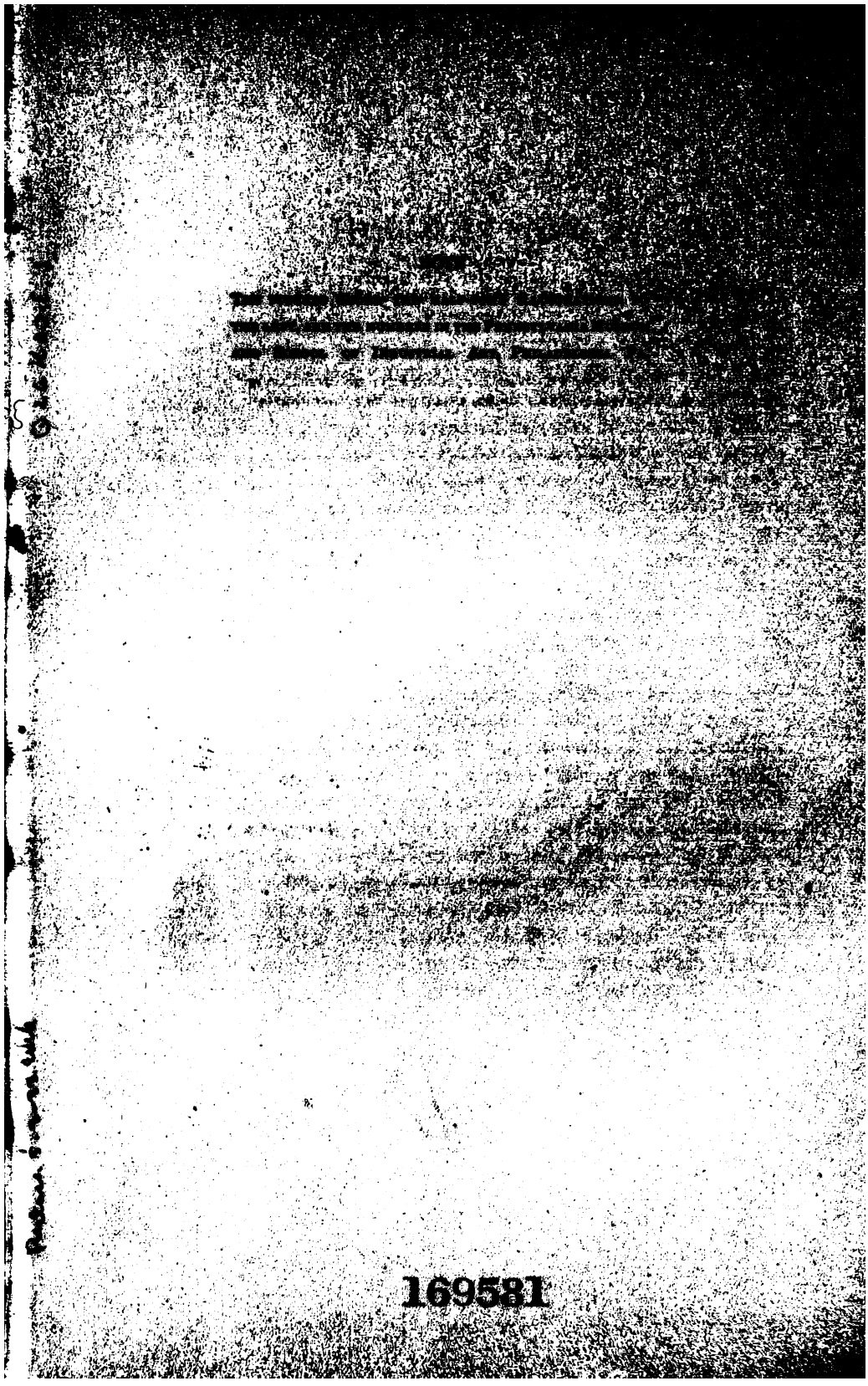
BY

EDWIN ATLEE BARBER, A.M., PH.D.
CURATOR

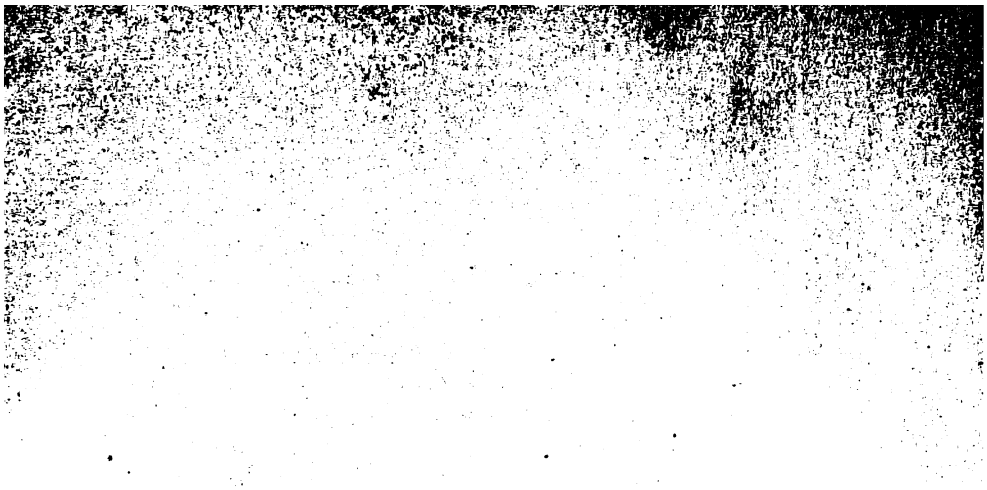
NEW YORK
DOUBLEDAY, PAGE & COMPANY
1907

COPYRIGHT, 1904, 1907, BY
THE PENNSYLVANIA MUSEUM
AND SCHOOL OF INDUSTRIAL ART
PHILADELPHIA, PA.

ALL RIGHTS RESERVED, INCLUDING THAT OF TRANSLATION
INTO FOREIGN LANGUAGES, INCLUDING THE SCANDINAVIAN



169581



PREFATORY NOTE.

THE *Art Primers* of the Pennsylvania Museum and School of Industrial Art are designed to furnish, in a compact form, for the use of collectors, students and artisans, the most reliable information, based on the latest discoveries, relating to the various industrial arts. Each monograph, complete in itself, contains a historical sketch, a review of processes, descriptions of characteristic examples of the best productions, and all available data that will serve to facilitate the identification of specimens. In other words, these booklets are intended to serve as authoritative and permanent reference works on the various subjects treated. The illustrations employed, unless otherwise stated, are reproductions of examples in the Pennsylvania Museum collections.

In these reviews of the several branches of ceramics the geographical arrangement used by other writers has given place to the natural or technical classification to permit the grouping of similar wares of all countries and times, whereby pottery, or opaque ware, is classified according to *glaze*, its most distinctive feature, while, on the other hand, porcelain, or translucent ware, is grouped according to *body*, or *paste*.

In the preparation of a Primer on *Salt Glazed Stoneware* the author has consulted the principal authorities on the subject, and he is particularly indebted, for many of the facts presented, to *The Art of the Old English Potter* and *The Art Stoneware of the Low Countries and Germany*, by M. L. Solon; *English Earthenware and Stoneware*, by William Burton; the South Kensington Handbook on *English Earthenware*, by Prof. A. H. Church, and *Early English Pottery, Named, Dated and Inscribed*, by John Eliot Hodgkin and Edith Hodgkin. The information contained in these pages will serve to clear up certain disputed points and correct some of the long accepted traditions of ceramic writers which have been found to be erroneous.

E. A. B.

CONTENTS

CHARACTERISTICS 1
ORIGIN 2

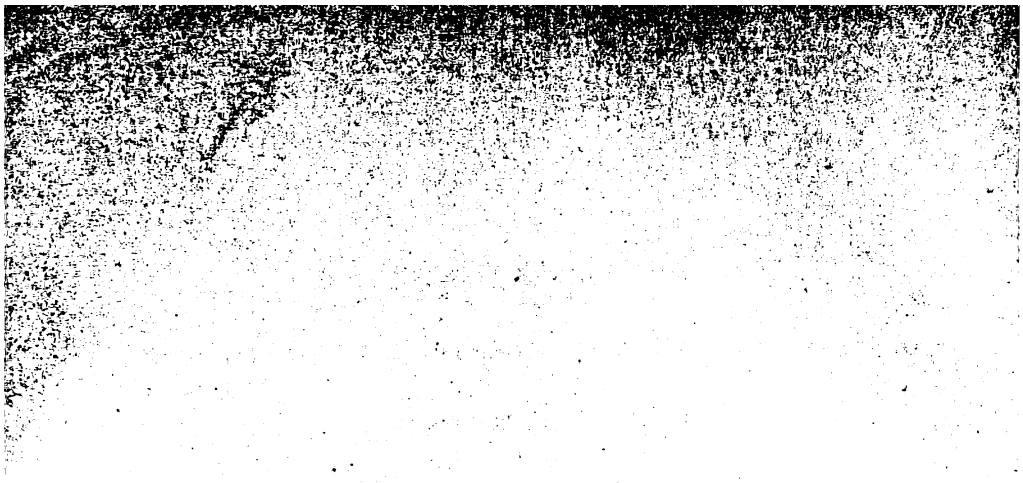
I. STONEWARE OF GERMANY AND THE LOW COUNTRIES 3
Siegburg 3
Raeren 5
Frechen 9
Kreussen 11
Grenzhausen 13
Bouffioux 14
Bunzlau 15
Dreyhausen 16
Other Continental Stoneware Centres 16

II. SALT GLAZED WARES OF ENGLAND 17
Fulham and Nottingham 17
Staffordshire 20
Lambeth 29

III. STONEWARE OF THE UNITED STATES 36

RECAPITULATION OF PRINCIPAL FEATURES OF SALT GLAZED STONEWARE 41

INDEX 51



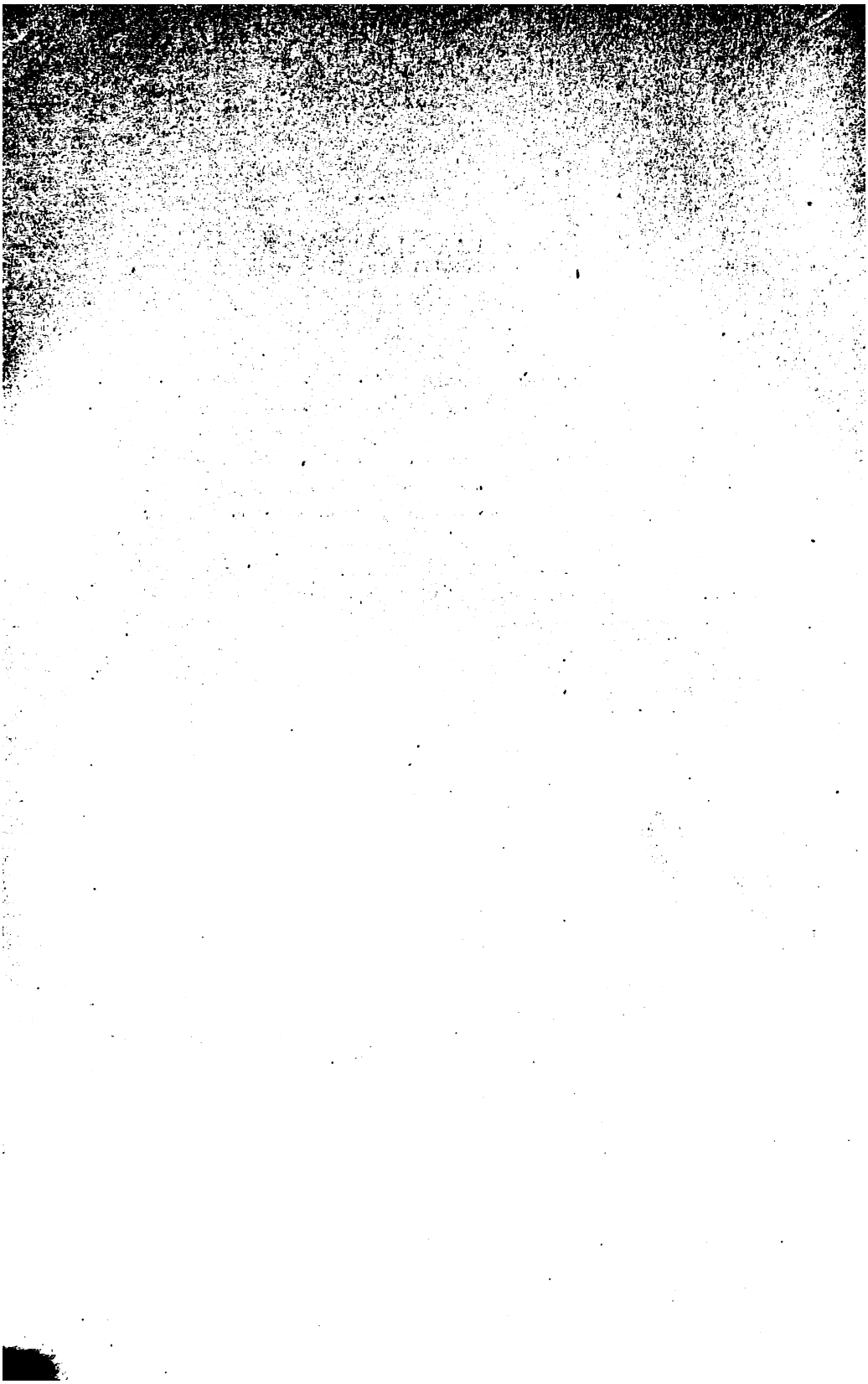
ILLUSTRATIONS

Brown stoneware "Bartmann" . . . . Frontispiece

1. White stoneware baluster jug 6
2, 3. White stoneware canettes. 6
4. White stoneware mug. 8
5. Brown stoneware jug 8
6, 7. Dark brown stoneware drug jar and mug . . . 12
8. Brown stoneware mug 12
9, 10, 11. Brown stoneware mugs and jug 12
12. Gray stoneware mug. 14
13. Gray stoneware jug 14
14. Gray stoneware mug 14
15. White stoneware mug. 14
16. Gray stoneware jug 14
17. Gray stoneware tankard 14
18. Gray stoneware jug 14
19, 20. Gray stoneware jug and mug 14
21. Brown stoneware "Bartmann" 16
22. Brown stoneware "Bartman" 16
23. Brown stoneware "Bartmann" 16
24. Brown stoneware "Graybeard" 16
25. Brown stoneware jug 16
26. White salt-glaze teapot 18
27, 28, 29. White salt-glaze plates 18
30. White salt-glaze cup 18
31. White salt-glaze sauce boat 18
32, 33. White salt-glaze teapot and cream jug 20
34, 35. White salt-glaze dishes 20
36. White salt-glaze dish 20

		Lesson Study
37.	Brown stoneware jug	23
38.	Doulton art-stoneware vase	23
39.	Brown stoneware jar	24
40.	Gray stoneware fountain	24
41.	Brown stoneware jug	24
42, 43.	Gray and blue "Toby" jugs	24
44, 45.	Gray stoneware tankards	24
46.	Gray and blue stoneware jardiniere and pedestal	24
47.	White stoneware mug	24
48.	Gray stoneware olive jar	24

SALT GLAZED STONEWARE



SALT GLAZED STONEWARE.

CHARACTERISTICS.

Stoneware is a highly fired, partially vitrified pottery, composed of plastic clay and sand, covered with an exceedingly hard vitreous glaze resembling in texture the granular surface of an orange skin, produced by throwing into the kiln, when the heat is most intense, common salt, which vapourises and settles on the surface of the ware in minute drops, and being thin and perfectly transparent does not obliterate the finest scratch. The body of the ware, of a white, brown, buff, or gray colour, is so hard that it will strike fire with steel, produces a ringing sound when struck, is impervious to water and resists the action of acids. The ware is finished at a single firing, except, as we shall see hereafter, in those cases where the decorations are applied over the glaze in enamel colors, as in some of the stonewares of Kreussen and the white salt glaze ware of England. Sometimes the brown color of the surface and of the glaze is produced by placing the pieces as closely together in the kiln as they can be set without touching, a process known as "smothering."

ORIGIN.

It is not known exactly when [illegible] was invented. In [illegible] it was [illegible] but improperly, known as Cologne ware, a name evidently given to it from the fact that the products of the neighbouring potteries in the valley of the Rhine were sent to that market. Similar stoneware was produced about the same time, or soon after, in Flanders, hence the name, *grès de Flandres*, or *grès Flamand*.

Salt Glazed Stonewares may be divided into three groups, as follows:—

I. Stoneware of Germany and the Low Countries.

II. Salt Glazed Ware of England.

III. Stoneware of the United States.

2. White Ware of [illegible]
3. Red Brown Ware [illegible]
4. Brown or Mottled [illegible]
5. Rusty, Dark Brown [illegible] Wares of Kreussen.
6. Gray Ware of Grenzhausen, with Blue, Brown and Purple Enamels.
7. Brown and Gray Wares of Bouffioux.
8. Ferruginous Ware of Bunzlau.
9. Dark Red Ware of Dreyhausen.

1. SIEGBURG.

Siegburg, opposite Bonn, is believed to be the earliest centre of stoneware manufacture in Germany. In the thirteenth century a coarse, brownish-gray stoneware was produced there. In the sixteenth century more artistic ware began to be made and a fine white clay was used. This was for a long time commonly known as Cologne ware. The earliest dated pieces appeared in the second half of that century.

Among the most characteristic forms produced at Siegburg are the tall drinking vessels, or *canettes*, of cylindrical shape, slightly tapering toward the top. At the neck and base are several corrugations or rings imitating the hoops of the earlier wooden drinking flagons. Extending from top to bottom are elaborately decorated panels, usually three in number, stamped with relief designs and attached to the surface side by side, in separate sheets. In some instances the same panel is repeated, but on many of the best examples three entirely different series of subjects appear, such as medallions, enclosing coats of arms, masks, and scriptural scenes, frequently accompanied by dates. These pieces have been imperfectly glazed, many examples having an entirely dry surface, while others seem to have absorbed a thin coating of the glaze which shows as a slight gloss in patches. Several good examples of Siegburg white stoneware *canettes* may be seen in the Pennsylvania Museum. At the top of one is a circular medallion representing Solomon judging between the two women with the dead and living babes, repeated three

No. '99-488.

1. White Stoneware Baluster Jug (5½ inches in height). Siegburg, Sixteenth Century.

Nos. '00-242, '70-201.

2, 3. White Stoneware Canettes (9¾ inches in height). Siegburg, Late Sixteenth Century.

UNIV. OF HOW

glass. Examples [illegible] each depicting David and Goliath, [illegible] in each of which David and the [illegible] medallions are [illegible] with a very thin [illegible] same form shows [illegible] date 1589 (see No. 3), while a third is entirely covered with [illegible] subjects, including [illegible] Agnus Dei.

A [illegible] form which was popular with the early Siegburg potters is the baluster-shaped jug, with globular body expanding [illegible] a [illegible] mouth and below in a broad foot. A marked peculiarity of these pieces is the thumbing or pinching of the feet into bosses or curving outlines. A small baluster jug, in the Museum collection, is decorated with three relief medallions, representing Adam and Eve in the Garden of Eden (see No. 1). The handles of these jugs are circular or ring-shaped, and are frequently only large enough to admit the forefinger.

The main characteristics of Siegburg stoneware are the light colour of the clay; the absence of salt glaze except as a thin gloss; decoration (usually scriptural or historical subjects) by means of stamped panels applied (in the case of *cannettes*) in sheets; the thumbing or smoothing of the bases of pieces by hand, and the consequent absence of the concentric grooves produced by the cutting wire. Marks were rarely used.

White stoneware, bearing a strong [illegible] to the Siegburg ware, but with a better glaze, was made at [illegible], Saxony, late in the seventeenth and early in the eighteenth century. Cylindrical mugs embossed with the [illegible] are [illegible]. One example, in the Museum collection, is decorated with [illegible] of separately applied rosettes and small floral reliefs, and mounted with hoops of pewter, a broad foot and lid of the same metal (see No. 4). Frequently the whiteness of the clay was intensified by a thin wash of stanniferous enamel

6. RAEREN

[illegible], near Aix-la-Chapelle, in the old province of Limburg, was the earliest seat of the stoneware industry in Flanders. In 1814 it became a part of Germany. Here was produced the first salt-glazed

[illegible]

One of the most characteristic shapes is the jug or vase with a cylindrical centre placed between two half-spheres, the lower one terminating in a foot, the upper one surmounted by a long, cylindrical neck. These jugs were moulded in separate parts, which were afterwards joined together. They have a frieze extending around the central portion, usually decorated with scenes from the Old or New Testament. A subject frequently employed is the Peasants' Dance. A pair of flagons, or *Bauerntanz-Krüge* (Peasants' Dance jugs), in the Museum collection, have a light brown or reddish glaze, and the date 1597 (see No. 5). Around the centre extend bands with continuous figure scenes of men and women dancing in pairs, accompanied by the following inscription:—

GERHET DU MUS DAPER BLASEN
SO DANSSEN DI BUREN ALS WEREN SI RASEN
FRY VF SPRICHT BASTOR
ICH VERDANS DY KAP MIT DEN KOR.

Translation:

Gerald thou must blow lustily
So the peasants may dance as though they were mad
Faith, says the pastor,
I will dance away my cap with my cassock.

Jugs of similar shape are embellished with a band of panels or apartments, illustrating "Works of Mercy." The letters which generally accompany these scenes are abbreviated inscriptions, as D. D. R., "Durstigen Dranken" (give drink to the thirsty); H. S., "Hungrigen Speisen" (feed the hungry); N. K., "Nackten Kleiden" (clothe the naked); W. D., "Wappen Dantzig" (the Dantzig arms), etc. These jugs were afterwards copied in the gray and blue stoneware of Grenzhausen.

No. '82-360.

4. White Stoneware Mug
(7¼ inches in height).
Altenburg, Saxony, about 1760.

No. '82-357.

5. Brown Stoneware Jug (10 inches in height).
Raeren, 1597.

UNIV. OF MICH.

[illegible] at Raeren [illegible] represent [illegible] whom the [illegible] names of [illegible] so many [illegible] purposes of [illegible]. Among these marks [illegible] device resembling the figure 4, which, while its significance has not been fully determined, is supposed to represent the badge of a class of merchants. This mark consists of various combinations of the circle, cross and figure 4, and seems to have been extensively employed in the fifteenth, sixteenth and seventeenth centuries, not only by merchants but by artisans as well. It occurs on the wares of Raeren and Siegburg, on Italian maiolica, on tapestries, and figures in books as the marks of printers. It doubtless had its origin in the chrisma, the monogram or emblem of Christ, composed of the first two letters of the Greek word for Christ, the symbol adopted by Constantine the Great, in the year 312, for use on the labarum or Christian standard. Sometimes the second letter was placed directly above the first, or on the upright arm of the cross. These marks, if they may be considered as such, are usually enclosed in embossed medallions which ornament the sides of jugs and other articles.

The principal characteristics of Raeren stoneware, as we have already shown, are a yellowish or grayish body; heavy bronze-like glaze, varying in colour from a deep reddish-brown to a pale dirty yellow, frequently mottled or freckled, in places, and more nearly resembling a thick coating of lead than a deposit of salt glaze; moulded in sections and joined together; decorations in relief, among the most popular subjects being Peasants' Dance, Works of Mercy, biblical scenes, Arms of towns and individuals, medallions containing ciphers, badges or merchants' marks. Some of the large vases or fountains of Raeren are among the greatest masterpieces of salt glazed stoneware. Many of these were copied by the Grenzhausen potters.

8. FRECHEN.

Frechen, near Cologne, is one of the ancient centres of salt glazed stoneware in Germany. The ware produced there bears a close resemblance to that of Raeren in colour and forms, and it is frequently

UofM

difficult to distinguish the one from the other. Many of the specimens, however, possess well-marked peculiarities. The glaze is often of a blackish, rather than brown tint, and sometimes approaches a dull greenish-yellow tone, usually fractured or accumulated in spots. The ware is generally coarse and simply decorated. A common shape is the Greybeard, distinguished by a spherical body tapering at the foot and neck, with a single small loop handle at the back. On the narrower portion of the neck is modelled a rude representation of an elongated bearded mask. These vessels, known in Germany by the name Bartmann (bearded man), were afterwards imitated in England, where they were popularly called Bellarmines. Llewellyn Jewitt, in his *Ceramic Art of Great Britain*, states that they "were derisively named after Cardinal Bellarmine, who died in 1621. The Cardinal having, by his determined and bigoted opposition to the reformed religion, made himself obnoxious in the Low Countries, became naturally an object of derision and contempt with the Protestants, who, among other modes of showing their detestation of the man, seized on the potter's art to exhibit his short stature, his hard features, and his rotund figure, to become the jest of the alehouse and the byword of the people." This form of jug was produced in infinite variety, and, while also made to some extent at other German and Flemish factories, is more frequently found among the Frechen productions.

Another form of vessel, produced extensively at Frechen, was the *cassette* with boldly modelled decorations, usually coated with the blackish glaze already mentioned. At a later date the gray and blue stoneware was extensively made there.

A decorative detail, frequently used on Bartmanns and other shapes, is a coin-like medallion, disposed at intervals around the surface. Some of the best examples possess bands of inscriptions around the centre. Arms and conventionalised designs in medallions form a conspicuous feature, and vines and scroll-work also abound.

Frechen ware was cut from the wheel, instead of being torn away, as was the case with the Siegburg ware, and one of the most distinctive features is the presence of elliptical markings or concentric circles of grooves on the base, usually starting at a fixed point near one edge and extending entirely across, produced by the coarse twisted wire or cord used in cutting the clay from the wheel while slowly revolving, at the end of the operation of throwing. This phenomenon proves the ware to be of later date than the hand-finished pieces of Siegburg. These lathe

[illegible] stoneware factories [illegible]. The principal [illegible] the gathering of the [illegible] wire marking on the body, the use of applied [illegible] scroll-work; the majority of the known pieces [illegible] originated at Frechen.

2. KREUSEN.

At Kreusen, in Bavaria, several [illegible] during the [illegible] century, the earliest dated specimens [illegible] bearing on the early part of the seventeenth century. A dark brown clay was extensively used. The ware usually possesses a rather thin glaze or glost, more evenly distributed than that of the white ware of Siegburg. Jugs, jars and mugs are among the most familiar forms. The earliest productions are of a uniform, rusty-brown colour, decorated with applied fragmentary reliefs, such as figures of the Apostles, heads of historic personages, arms, etc. The drinking mugs were usually capacious, and of broad, squatty form. Drug jars, of barrel shape, with four or six flat sides or panels, were particularly characteristic.

In the Museum are several fine examples of this ware. One of these, a hexagonal drug jar, bears relief figures of six of the Apostles on [illegible] of the panels, two [illegible] each, while the sixth [illegible] JOHANN MAY. DOCTOR. M. D. [illegible]. [illegible] the jar are clusters of grapes, while at the six angles [illegible] festoons, etc. A contracted circular [illegible] is arranged [illegible] jar, which [illegible] from the [illegible] several examples [illegible] Apostles, apparently [illegible] pursuit emblematic [illegible] Adolphus. On the shoulder are five [illegible] A large, low drinking mug of the same rusty brown ware, with pewter cover, has for adornment the twelve Apostles, in the midst of which is the figure of Christ (see No. 7). The surface of these pieces shows distinctly through the glaze the lines of the brush used in smoothing the clay around the applied reliefs, the fine parallel [illegible] at different angles, where the direction of the brush has been changed

[illegible] the majority of the [illegible]
[illegible] the centre of the [illegible]
[illegible] placing the pieces on top of each other
[illegible] only the [illegible] being subjected to the
[illegible] salt.

At a somewhat later period, bright, opaque enamels—red, yellow, blue, brown and white—resembling oil colours, were applied to the reliefs, and gilding was liberally used. The same forms were employed, the decorative subjects being figures of the Apostles, representations of boar and stag hunts, heads and busts of ritual personages, etc. Several fine examples of this style may be [illegible] Museum collection. A group of enamelled pieces of the seventeenth century, two mugs and a wine jug, or *cruche*, are shown in Nos. 9, 10 and 11. The ornamentation is in relief, touched with vivid light blue, red, yellow, white and green enamels. The mug at the right is ornamented with figures of Saints, alternating with sprays of lilies of the valley. Around the top extends an inscription, while beneath the handle appears the date 16[illegible]. The central jug bears in front the figures of the Virgin and Child. A large, low mug, in the same collection, is embellished with [illegible] scenes (see No. 8) on the two sides, and the head of a gentleman of the period in front.

So-called mourning jugs, with geometrical patterns in black and white, often reheightened with gilding, were also produced in abundance. The use of enamel colours and gold marked the decadence of the art. Many counterfeits of this ware have been produced, but these may generally be detected by the oil pigments used, which can be easily scraped off with a knife.

The distinguishing features of Kreussen stoneware are the peculiar uniform dark-brown colour of the glaze, often suggestive of iron rust; the distinctive forms of vessels; the use of coloured, opaque enamels and gilding on the wares of the second period, and the frequent occurrence of large, circular, unglazed places on the bases of vessels. Some of the tall enamelled jugs, or cruches, however, which have come to our notice, show the wire markings which distinguish the Frechen Bartmanns, but the grooves are finer and closer together.

5. GRENZHAUSEN.

At Grenzhausen and Höhr, near Coblentz, a gray clay was used in the manufacture of salt glazed stoneware during the seventeenth,

Nos. '05-236, '82-343.

6, 7. Dark Brown Stoneware Drug Jar and Mug (14 and 6¼ inches in height).
Kreussen, Bavaria, Middle Seventeenth Century.

UNIV. OF MICH.

No. '05-227.

8. Brown Stoneware Mug (5¾ inches in height)
Decorated with Coloured Enamels.
Kreussen, Bavaria, Seventeenth Century.

9, 10, 11. Brown Stoneware Mugs and Jug (Central Jug 10 inches in height).
Decorated with Coloured Enamels. Kreussen, Bavaria, Seventeenth Century.

surface. A mug of grey body and dark-blue colouring, with mounted knights in relief, and a "Works of Mercy" finger, in the Raeren style, are two specimens of Grenzhausen stoneware of the eighteenth century, in the Museum collection (see Nos. 14 and 16), and in No. 17 we see a good example of the G. R. (*Georgius Rex*) jug, which was later copied in England.

The earliest known example of Grenzhausen stoneware in any American collection is a jug in the Boston Museum of Fine Arts, bearing the date of 1594. The decoration consists of incised floral designs surrounding an applied medallion on the front containing relief busts of the French King and Queen, encircled by the following inscription: "Lovis le Grand Roy de France et de Nav. et Marie Terese Reyne de France." The spaces between the decorations on the front half of the jug are covered with heavy, dark-blue enamel. The lower end of the handle is curled up in the characteristic Grenzhausen style (see No. 18).

The pottery of Grenzhausen is composed of whitish clay, resembling that of Siegburg, ornamented with incised designs and relief ornaments. Flowers, leaves and other details were produced by placing on the surface of the ware small bats of clay and pressing them with engraved stamps, and then carefully removing the excess of clay around the edges, instead of first moulding the ornaments and attaching them separately, as was done at other places. The stems were then traced in the clay with an instrument possessing four or five parallel points (see Nos. 15 and 18).

Many of the modern pieces made at Grenzhausen and Höhr are

[illegible] of the characteristic earlier forms of [illegible] such pieces, however, are usually made of the bluish gray [illegible] of the latter and [illegible] of the originals, and are [illegible] and plainly [illegible] in the decoration, which consists [illegible] the classic [illegible] figures, [illegible] most popular being [illegible] tall [illegible] of Bacchus and the Peasants' Dance [illegible] of [illegible] boards, or [illegible], were [illegible] made in the [illegible] district, but of late years they have been [illegible] produced to [illegible] special orders, in imitation of the [illegible] wares of the Flemish [illegible]. About the year 1879 large quantities of "[illegible]" jugs were manufactured at Elchingen for the English market, after [illegible] methods, to supply the demand for antiques, the old recurved handles being [illegible] copied. In some instances these reproductions were buried in [illegible] for several weeks to produce the appearance of antiquity. Collectors are warned against these [illegible] imitations of the old pieces.

The chief characteristics of Grenzhausen stoneware are a gray or bluish-gray tint of the body and a heavy, brilliant salt glaze; the peculiar decoration—a combination of incuse, or sunken, and incised ornamentation and moulded reliefs; the use of cobalt blue, purple and brown enamels. Marks seldom appear on Grenzhausen ware, and the bases of mugs and jugs, as a rule, present a smooth and carefully sponged surface. Handles were generally recurved or curled up at the lower ends, frequently forming loops (see No. 14), but for many years this practice has been abandoned and plain handles or those terminating in a flat point, have been in vogue. The blue enamel of the older ware is blacker than that of the modern, and the body is of a more yellowish-gray tint than that of the recent productions.

6. BOUFFIOUX.

Pottery is known to have been made at Bouffioux and the adjacent villages of Ponte-de-Loup and Chatelet (now in the territory of Belgium) at an early period, but it was not until near the end of the sixteenth century that the manufacture of stoneware was firmly established in that district. The earlier ware was a brown stoneware of good body and glaze, sometimes smeared with blue enamel, imitating the products of Raeren and Frechen, but much inferior in quality of decoration. At a later date the gray and blue stoneware of Grenzhausen was imitated here, and continued to be manufactured extensively until the beginning of the nineteenth century. The products were the coarser varieties

Nos. F, 444. 76-860.

12. Gray Stoneware Mug (5½ inches in height).
Moulded and Incised Decoration, Blue Enamel.

13. Gray Stoneware Jug (8 inches in height).
Champlevé Style, Blue and Claret Enamel. Grenzhausen, Eighteenth Century.

No. '08-940.

14. Gray Stoneware Mug (5 inches).
Moulded Decoration, Blue Enamel.
Grenzhausen. Eighteenth Century.

No. '76-856.

15. White Stoneware Mug (8½ in.).
Stamped and Incised Decoration.
Grenzhausen, about 1760.

No. '05-241.

16. Gray Stoneware Jug (11½ inches in height).
"Works of Mercy," Raeren Style. Moulded and Blue Enamel Decoration.
Grenzhausen, Eighteenth Century.

No. '05-210.

17. Gray Stoneware Tankard
(10¾ inches in height).
Moulded, Incised, and Blue Enamel Decoration.
Grenzhausen, Eighteenth Century.

Museum of Fine Arts, Boston.

18. Gray Stoneware Jug
(11¼ inches in height).
Moulded and Incised Decoration,
Blue Enamel Ground.
Grenzhausen, 1694.

Wadsworth Atheneum, Hartford, Conn.

19, 20. Gray Stoneware Jug and Mug.
Moulded, Incised, and Blue Enamel Decorations.
Germany. Eighteenth Century.

ed ware, such as beer jugs, travelling bottles, water bottles, large flask-shaped vessels used for holding oils, acids, drugs, etc., and kitchen utensils.

In the Boston Museum of Fine Arts is a large globular jug of the Graybeard type, embellished with a heraldic medallion, supported by two lions rampant. Two circular medallions, one at each side, bear large and rudely modelled heads of CLAUDIUS and NERO, respectively, surrounded by inscriptions which have been copied from other moulds, as shown by the reversal of some of the letters. On the front of the neck is the usual bearded mask, which is rudely daubed with dark blue enamel, as are also the other reliefs. The glaze, which is confined together in little patches, is of a red-brown hue. The handle is ornamented in the Grenzhausen manner, and the base of the jug is evidently removed in the Frechen style. This interesting piece belongs to the latter part of the seventeenth century (see No. 21).

Another example, in the same collection, is somewhat similar in form but of smaller size (No. 22). The three armorial medallions on the front and sides are from the same mould and bear an inscription and the date 1618. The glaze is dark brown and evenly spread over the entire surface. The colour which is smeared over the reliefs is dark blue, almost approaching black. The handle at the lower extremity terminates in a long point, resembling the tail of a lizard, and on the base are coarse wire markings.

A similar Bartmann of brown ware may be seen in the Trumbull-Prime collection of Princeton University. The mask and the three circular medallions containing heraldic devices are stained with blue and bear the date 1604. The glomeration of the brown glaze in this piece is quite marked, while the handle, as in the preceding, extends down close to the body in a thumb-indented point (No. 23).

Quantities of Bouffioux stoneware have been dug up in the vicinity of London, England. A fine example, in the Museum collection, eight inches in height, has the "lizard's tail" handle and bears on the base the concentric grooves of the cutting wire (see No. 24). It was brought to this country from Ireland many years ago. The illustration facing the title page represents a large Graybeard or Bartmann of primitive form and crude decoration, which may be seen in the collection of this Museum.

Occasionally marks, initials or names of makers are found on pieces of Bouffioux ware, but the characteristic mark of merchants, resembling the figure 4, so frequently found on Raeren ware, does not occur on the

7. BUNZLAU.

A peculiar variety of stoneware was extensively produced in the first half of the eighteenth century, at Bunzlau, twenty-five miles south of Liegnitz, in the southwestern part of Germany. The embellishments of the late period consist of moulded and applied figures of yellowish-white clay, sometimes gilded. Cruet-shaped jugs of various sizes, with pointed lips, are common, which are usually mounted with pewter, with lids of the same metal. A small example of this class in the Museum collection, with raised designs of leaves, and coat of arms surmounted by a crown, is here illustrated (*No.* 25). The ware is characteristic and readily recognised, but possesses little artistic merit. While it can scarcely be classed with salt glazed wares, as here referred to, since it is a true, hard stoneware, and cannot properly be grouped with any other wares. The glaze somewhat resembles in colour that of the Peasants' Dance jugs of Raeren, being of a bright red tint with a metallic lustre, smooth and regular, containing a considerable proportion of iron, without the mottled appearance of the Raeren stoneware. Several good examples of Bunzlau ware are in the Trumbull-Prime collection of Princeton University. Coffee pots, pans, and other kitchen utensils were also extensively made.

8. DREYHAUSEN.

Extending over a period of perhaps two centuries, beginning with the latter half of the sixteenth century, a peculiar variety of dark red stoneware was produced at this place, in the Grenzhausen district. The majority of examples known are of the "baluster" shape, somewhat similar to the early jugs of Siegburg, the principal characteristic being that the neck, or body, is surrounded by numerous loops supporting small, movable rings, which produce a tinkling sound when the vessel is shaken. The decoration is usually of the simplest character, consisting principally of horizontal corrugations and furrows.

OTHER CONTINENTAL STONEWARE CENTRES.

Previous to the middle of the seventeenth century Flanders included a part of the present territory of Holland and the departments of Nord and Pas-de-Calais, now belonging to France. Stoneware was produced

[Museum of Fine Arts, Boston.]

21. Brown Stoneware "Bartmann" (18½ inches in height). Medallions Smeared with Blue Enamel. Bouffioux, Early Seventeenth Century.

Museum of Fine Arts, Boston.

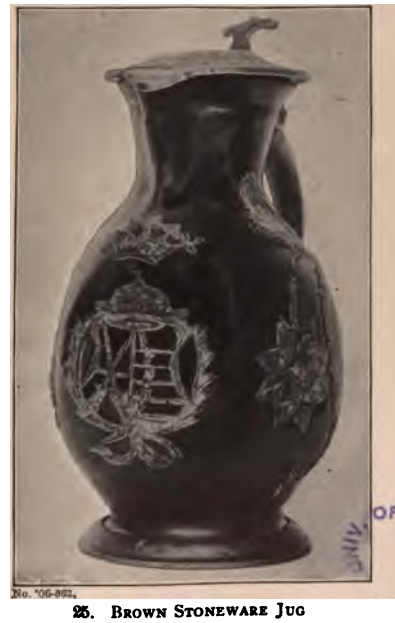
22. BROWN STONEWARE "BARTMANN" (8 inches in height).
Medallions Smeared with Blue Enamel.
Bouffioux, 1618.

Trumbull-Prime Collection, Princeton University.

23. BROWN STONEWARE "BARTMANN" (15 inches in height).
Medallions Smeared with Blue Enamel.
Bouffioux, 1604.

No. '94-201.

24. Brown Stoneware "Graybeard"
(7¼ inches in height).
Bouffioux, about 1700.



No. '06-802.

25. Brown Stoneware Jug
(5¼ inches in height).
Yellow Relief Designs.
Bunzlau, Eighteenth Century.

II. *SALT GLAZED WARES OF ENGLAND.*

The salt glazed stonewares of England may be divided into three classes:—

1. Early Brown Ware (Fulham and Nottingham).
2. White Salt Glaze Ware (Staffordshire).
3. Modern Brown Ware (Lambeth).

1. FULHAM AND NOTTINGHAM.

The earliest English stoneware was known as "Crouch ware." Mr. M. L. Solon, in *The Art of the Old English Potter*, asserts that the term was derived from the name of the white Derbyshire clay, while Mr. William Turner, in the *Connoisseur* of January, 1905, suggests, with some degree of plausibility, that it may be a corruption of Crich, the name of a town in Derbyshire where "Crouch ware" was produced at an early date. The oldest English salt glazed stoneware is a close imitation of the Frechen brown ware, being distinguished by its very conspicuous accumulation of the glaze, or granulation in minute drops. Previous to the beginning of the manufacture in England large quantities of white and brown stoneware from the Rhenish potteries found their

and ... that, the outside of the pot was partially glazed. Mr. ... however, effectually disposed of this tradition by ... that it is a chemical impossibility to produce ... conditions.

To the Elers brothers other historians have ... about 1690, but in the light of recent discoveries ... conceded that glazing with salt had been practised ... the arrival of these Dutch potters in Staffordshire.

John Dwight, of Fulham, took out a patent in ... of the "mysteries of the Cologne ware." Few ... known, but those which have survived are of the ... executed a series of statuettes which rank with ... kind ever produced. Among these may be mentioned ... Jupiter, Mars, Meleager and Saturn, coloured in imit... bronze, and busts of Prince Rupert, James II, Mrs. Pepys a... of his deceased daughter, Lydia Dwight, in lighter coloured ... are preserved in some of the principal museums of England.

After Dwight's time the Fulham works were continued, and ... until a recent date. Here were made mugs, tankards, jugs, ... and beer bottles, bearing the medallions and initials of Eng... Dated examples have been found, ranging from 1721 to 176... the popular subjects, in relief decoration, being hunting ... head of Queen Anne, St. George and the Dragon, and ... Midnight Modern Conversation."

Gray stoneware jugs of spherical form, and cylindrical ... mugs, of the eighteenth century, with stamped and incised ... and blue enamel ornaments, have been found in considerable ... in certain localities, particularly in the New England States. ... of these bear the impressed letters G. R. (*Georgius Rex*) ... crown. Although this ware bears a close resemblance, in ... shapes and decorative features, to the Grenzhausen productions ... the same period, it has always been known to American collectors ...

Museum of Fine Arts, Boston.

26 White Salt Glaze Teapot (4½ inches in height).
Staffordshire, about 1740.

Nos. '82-760, '82-1416, '04-131.

27, 28, 29. White Salt Glaze Plates (8 and 14 inches).
Staffordshire, about 1750.

Owned by Mr. W. L. Calver.

30. White Salt Glaze Cup.
Scratched Blue Decoration. Staffordshire, about 1770.

No. '22-1429.

31. White Salt Glaze Sauce Boat (3½ inches in height).
Staffordshire. about 1750.

Fulham stoneware. There is one particular in which it appears to differ from its German prototype, that is the manner in which the handles are attached. In the Grenzhausen pieces the base of the handle usually terminates in an outward and upward curl, while the majority of the specimens which have been under our notice, that have been found in this country by the early settlers, possess a handle which is pressed at the lower end where it joins the body. That such pieces were imported from England has been clearly proved, but whether they are of English origin or German importation is still an unsettled question. Mr. William Burton, in his *English Earthenware and Stoneware*, states that "We have further information as to the wares made by Dwight's successors from what is known of the Fulham stoneware, found in 1866. While some repairs were being carried out at the works a forgotten chamber was broken into, which was found to contain a heap of stoneware vessels and fragments of various types and dates, long walled up and forgotten. Most of these specimens were in the shape of common ale jugs or wine bottles, and so similar were they in material, shape and decoration to the pieces we know to have been imported from Cologne, that but for this find we should have been in doubt if such pieces were of German or of English make. In addition to these were many round-bellied gray jugs, with scratched and stamped ornaments and patches of cobalt blue and manganese purple used as grounds. Several of the latter kind had the monograms of English sovereigns, with a crown above, stamped on the front, and thus give us a definite place of origin for some of the well-known pieces of this description." Mr. Solon, in his Catalogue of a Small Collection of Salt Glazed Ware (Hanley, England, 1890), asserts that "The Fulham Ware, having never been marked, and being often the mere reproduction of the types imported from Flanders and Germany, identification is in most cases on mere speculation." Three good examples of this ware are to be seen in the Fuller and Terry collections of the Wadsworth Athenæum, Hartford, Connecticut (see Nos. 23 and 24). Photographs of these two pieces were sent to Mr. Solon for identification, and he has expressed his opinion that they are not of English manufacture, but German importations of the second half of the eighteenth century. "I never saw any example of the kind," he writes, "that had been attributed to an English potter." They are, in all probability, examples of the degraded ware which was produced in the Grenzhausen district in large quantities late in the eighteenth century for the English trade.

2. STAFFORDSHIRE.

The term "salt glaze" has been applied to an English product, a stoneware of white body, thin and graceful in appearance, [illegible] fired as to be translucent in its thinnest parts, covered with [illegible] ingly hard saline glaze, which first appeared in Staffordshire [illegible] close of the seventeenth century. Thomas Miles, of Shelton, [illegible] a white stoneware as early as 1685. Prof. A. H. Church, [illegible] the manufacture of white salt glaze ware into four periods, [illegible] mating twenty years each, as follows:—

Previous to 1720, Archaic period, when impressed and applied [illegible] ments were used on thrown or turned vessels.

From 1720 to 1740, when flint was added to the body, the work [illegible] fine and sharp.

From 1740 to 1760, when coloured enamels were employed for [illegible] ating the surface.

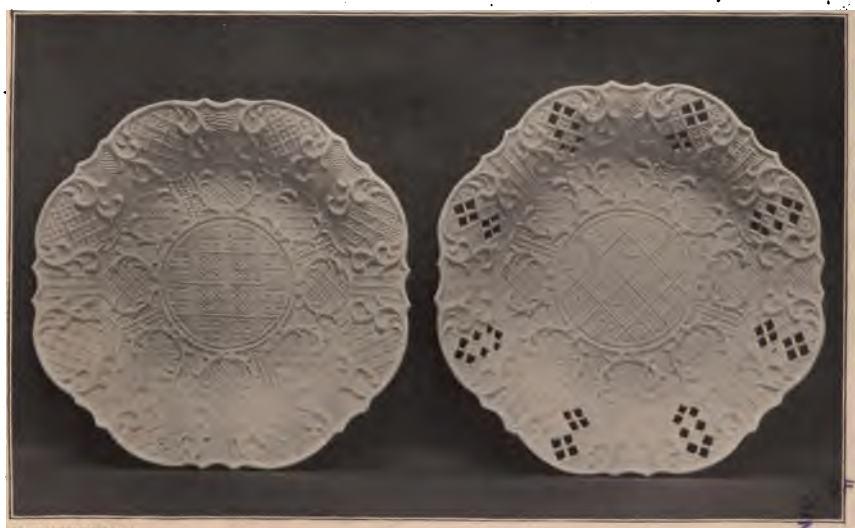
From 1760 to 1780, when basket and pierced work were prevalent.

The productions of the first of these periods were embellished with ornaments impressed or stamped in the clay, or separately moulded and afterwards applied to the surface. The ground of the ware was drab coloured or white.

The ware of the second period was formed by stamping or pressing

Wadsworth Athenæum, Hartford, Conn.

32, 33. WHITE SALT GLAZE TEAPOT AND CREAM JUG.
Decoration in Enamel Colours. Staffordshire, about 1760.



Nos. '82-1417, '82-1418.

34, 35. WHITE SALT GLAZE DISHES (9 and 10 inches).
Staffordshire, about 1780.

Museum of Fine Arts, Boston.

36 WHITE SALT GLAZE DISH (15 inches).
Decoration in Enamel Colours, Rose, Green, Muddy Blue, Brown, and Black.
Staffordshire, about 1760.

Conventional forms were ornamented with fan and shell-shaped reliefs, scrolls, floral patterns and delicate traceries. Bottles, vases and jars were beautified by floral sprays, rosettes, armorial bearings, masks and convolute ornaments, while plates, tea cups, dishes and trays of various graceful forms were bordered, and often entirely covered, with panels and alternating medallions of hatched, diapered, trellised and starred ornamentation. During this period and the preceding, no colour was used to relieve the pure whiteness of the ware (see Nos. 27, 28, 29 and 31).

In the third period, colour was first added to the decoration. Patterns were scratched in the unbaked clay, into which the blue colour was rubbed before firing. This style of ornamentation was known as "scratched blue" (see No. 30). Pieces of this description frequently bore inscriptions and dates ranging from 1730 to 1760. Between 1740 and 1750 William Littler, of near Burslem, produced some very beautiful and effective pieces of salt glaze with a relief design upon ground, by dipping them, while still in a partially dried clay state, into a slip of the same ingredients, to which blue colour had been added, which were afterwards fired in the salt glaze oven. Some of these pieces were painted with designs in raised white enamel, in the Persian style of the stanniferous faïence of Nevers, France. These decorations were fixed by a second firing at a lower temperature. Another style of decoration, largely employed between 1740 and 1760, was the painting on the glaze in enamel colours. Human figures, Chinese scenes, birds and flowers were added in polychrome (see Nos. 32 and 33). A superb example of this style, in the Boston Museum of Fine Arts, is a dish,

[illegible] plates [illegible] coloured with [illegible] colours (see No. 98). Towards 1750 [illegible] late origin, whereby a [illegible] pleasing and [illegible] Some of the best plates were covered with [illegible] and turquoise blues, [illegible] reserved in white, to receive the polychrome [illegible] soon after the invention of transfer printing, [illegible] to salt glaze decoration to a considerable extent. [illegible] period the art of making salt glaze ware had reached [illegible] development.

The fourth period marked the decadence of the art. [illegible] basket designs, in combination with embossed work (see [illegible] 35), were the principal features of this epoch. Astbury, [illegible] other potters modelled patterns with basket work centres and [illegible] borders. About 1780, after the introduction of cream ware and [illegible] lain, the manufacture of salt glaze began to decline rapidly, although it continued to be made at a few establishments until after the beginning of the nineteenth century.

While the greater portion of white salt glaze was produced in Staffordshire, it was also made to a limited extent at Liverpool, Jackfield, [illegible] and a few other places.

8. LAMBETH.

Stoneware was first produced at Lambeth about 1751. The ware is usually coloured a rich reddish-brown above, while the lower portion is of a buff or yellowish hue, presenting the appearance of having had the upper half covered with a darker surface wash. The form of the Lambeth jugs, like those of John Turner and William Adams of the early nineteenth century, is characteristic. From a spherical body rises a broad, perpendicular collar, the upper edge of which has been pinched or bent out in front to form a small triangular lip. Handles frequently terminated in a moulded ornament or were fixed with a modelled leaf. Two examples of this form, of about 1820, in the Museum collection, are embellished with moulded hunting scenes and separately applied figures of men, monkeys and dogs. One of these has a handle which has apparently been attached by means of two stoneware screws, a method which obtained in some of the English

Lent by Mr. Edward Russell Jones.

37. Brown Stoneware Jug (7 inches in height).
Lambeth, England, about 1820.

No. '97-409.

38. Doulton Art Stoneware Vase (13 in. in height).
Etched by Miss Hannah B. Barlow, Lambeth, 1876.

[illegible] at that time (see [illegible]
at Lambeth, where [illegible]
[illegible], pickle jars and [illegible]

Mr. John Doulton [illegible]
[illegible]teenth century at the [illegible]
and after serving his [illegible]
he established, in co[illegible]
pottery in Vauxhall Walk. In 1858 they [illegible]
Street, where the plant was rapidly enlarged as the [illegible]
increased.

The Doulton ware has in recent years become [illegible]
The most characteristic, and certainly the most [illegible]
style of decoration practised by the Doultons is that [illegible]
designs scratched on the plain wet surface of the ware. Among the best artists in this line of work is Miss Hannah B. Barlow, whose studies of animals were first seen in this country at the Philadelphia Centennial Exposition in 1876. Since then her work has become familiar to all lovers of art on this side of the Atlantic. Her spirited renderings of horses, dogs, sheep and rustic life, in the fewest possible lines, are truly remarkable, and she has been placed by competent critics next to Rosa Bonheur as a delineator of animal life. Among other celebrated ceramic artists who have been employed at the Lambeth works may be mentioned Mr. George Tinworth, Mr. Arthur B. Barlow, Miss Florence Barlow and Mr. Frank A. Butler.

The Doulton art stoneware reveals a combination of several processes. Surrounding the zones or panels of scratched decorations, which are covered with salt glaze, are bands of coloured enamels, outlined and carved designs and bossed or jewelled work. In the Museum collections are many fine examples of the best products of this factory, the majority of which were purchased at the Centennial Exhibition, while others are of a more recent date. In this collection, Miss Hannah B. Barlow and Mr. George Tinworth are well represented (see No. 38). A pair of large modelled and jewelled garden vases, four feet in height, are perhaps the most elaborate and striking pieces in the collection.

III. *STONEWARE OF THE UNITED STATES.*

Previous to the establishment of stoneware potteries in the American colonies, some of the earlier German and English settlers brought with them to this country utensils of salt glazed earthenware, some

[illegible] New York [illegible] of Palatine Bridge, [illegible]. This is a large [illegible] stoneware, embellished with figures of animals in blue, [illegible] of Grenzhausen ware, belonging to the latter half of the [illegible] century. A two-handled cup, of English white [illegible] eighteenth century, was obtained from a buried [illegible] State.

Mr. W. L. Calver, who has investigated the sites of [illegible] encampments in the vicinity of New York City, [illegible] numerous fragments of plain salt glaze and scratch blue [illegible] the debris of English military camps of about 1760, together [illegible] white clay pipe bowls, bits of vessels of Leeds creamware, [illegible] ware of Wedgwood and other English pottery of that [illegible] white salt glaze pieces are exceedingly thin and even in body, [illegible] evidently made by the casting process. The fragments of [illegible] blue ware are rudely incised with conventional floral [illegible] "herring-bone" borders of a pale purplish blue colour (see No. [illegible]).

In the month of September, 1906, the writer discovered, [illegible] upturned clods of an ancient kitchen garden, on the site of an old [illegible] settlement (once known as Gosport) on Star Island, Isles of [illegible] off Portsmouth, N. H., numerous fragments of English white [illegible] glaze, including pieces of teapots, cups and plates, some of which, [illegible] the period of about 1740, are exceedingly thin and delicate, while others, [illegible] of a later date, are thick and heavy and bear the characteristic embossed [illegible] patterns. Here were also unearthed bits of brown and gray stoneware [illegible] from the German potteries and delft-ware from Holland, showing that [illegible] imported wares were in general use in this part of New England during [illegible] the latter half of the eighteenth century.

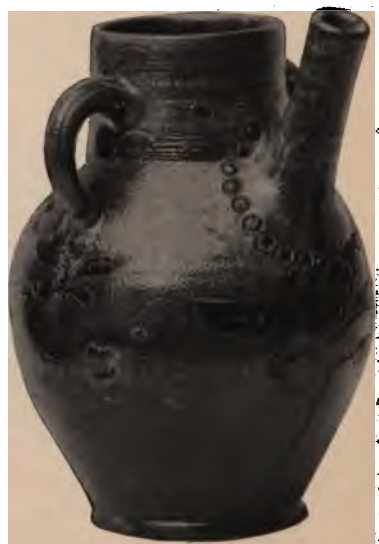
Salt glazed stoneware has been made in America since early in the eighteenth century. The first products were of a rude and simple character, in the forms of crocks and jars and other utilitarian articles, entirely devoid of ornamentation save an occasional dash of blue or, in exceptional cases, a few roughly incised ornaments. John Remmey,

No. '91-6.

89. Brown Stoneware Jar (18½ inches in height).
Cobalt-Blue Decoration.
Made by Paul Cushman, Albany, N. Y., 1809.

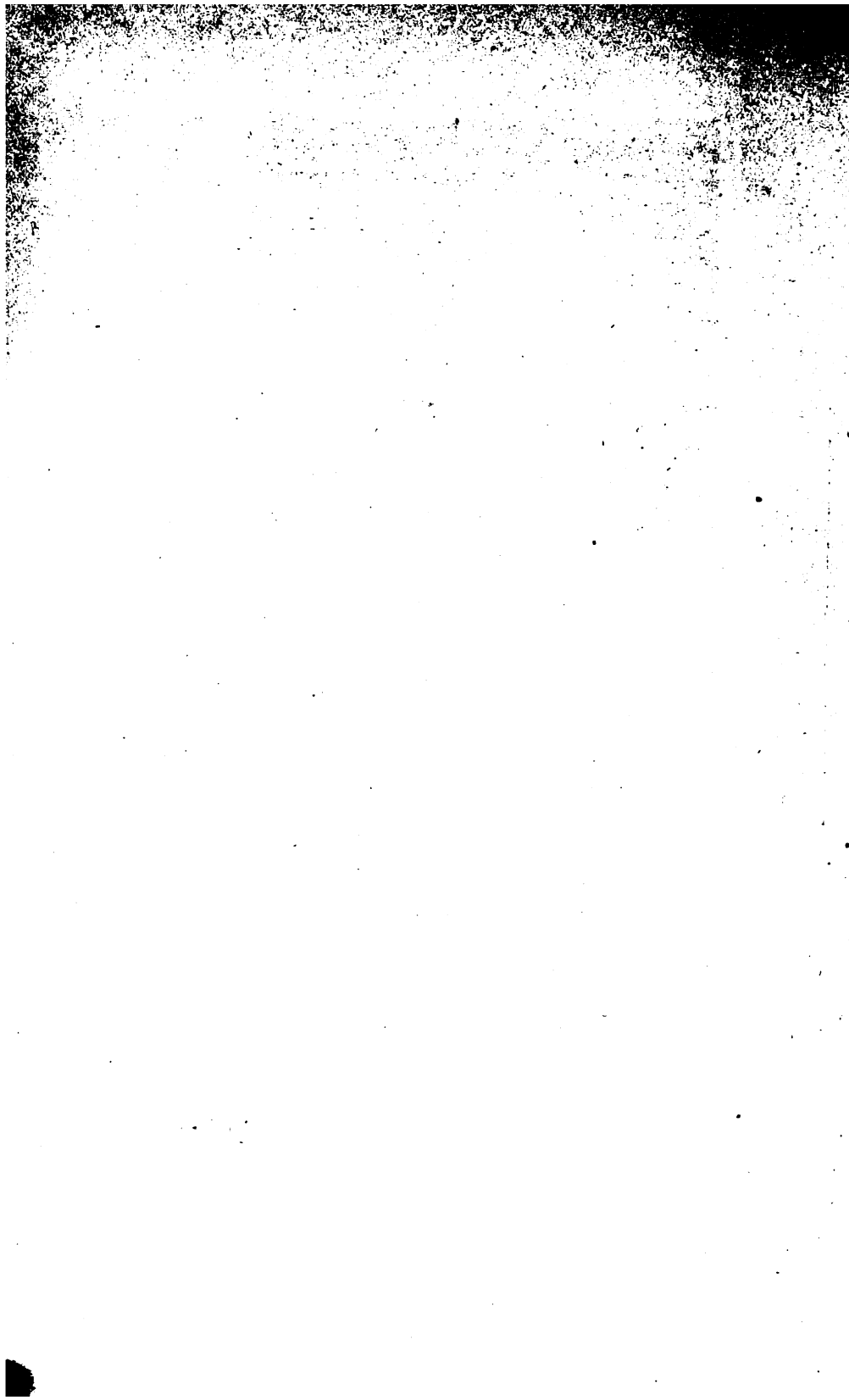
No. '91-66.

40. Gray Stoneware Fountain (2 feet in height).
Modelled, Incised and Blue Enamel Decoration.
Made by Solomon Bell, Strasburg, Va., about 1865.



Owned by Mrs. I. S. Gleyath, Jr.

41. Brown Stoneware Jug (11 inches).
Cobalt-Blue Decoration.
Crolius Pottery, New York, 1795.



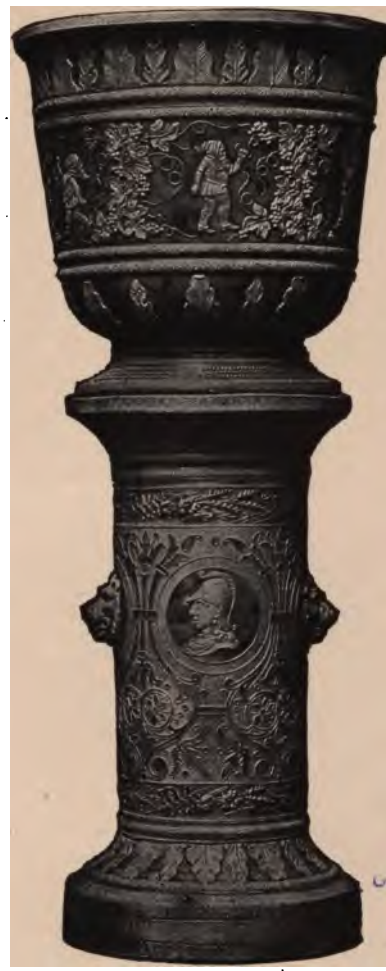
Owned by the Author.

42, 43. GRAY AND BLUE "TOBY" JUGS (8½ and 6½ inches in height).
Grenzhausen Style.
Made by Wingender & Bro., Haddonfield, N. J.

Nos. '97-42, '97-41.

44, 45. GRAY STONEWARE TANKARDS (11¼ and 10½ inches in height).
Moulded and Blue Enamel Decorations, Grenzhausen Style.
Made by Wingender & Bro., Haddonfield, N. J.

UNIV. OF MICH.



Owned by the Author.

46. Gray and Blue Stoneware Jardiniere and Pedestal (33 inches in height). Grenzhausen Style. Made by Wingender and Bro., Haddonfield, N. J. (From "Pottery and Porcelain of the United States," G. P. Putnam's Sons, N. Y.)

Owned by Mr. Charles C. Benham.

47. WHITE STONEWARE MUG.
Carved and Enamelled Decoration.
Made by Charles C. Benham.
(By Courtesy of *The Ladies' Home Journal.*)

No. '92-309.

48. GRAY STONEWARE OLIVE JAR (1 ft. 10½ inches in height).
Modelled and Blue Enamel Decoration.
Made by Mrs. S. S. Frackelton.
By Courtesy of *The Ladies' Home Journal.*)

a German, established a pottery in New York City about 1735. His works were situated at Potter's Hill, near the site of City Hall. On a map showing the plan of New York City in 1742, the pottery of Crolius & Crolius is marked. At a later date, John Remmey, having died in 1762, the second partner, or possibly his son, appears to have continued on the business alone, as is indicated by a stoneware jug eleven inches in height, with two large handles and a spout. The ware is of a rich brown colour, with stamped and cobalt blue decorations. On the back is the inscription:—

New York, Feby 17th 1798
Flowered by
Mr. Charleston Crolius.

Around the spout is a conventional design of leaves and flowers in blue, while similar embellishments adorn the body above the inscription (see No. 41). This pottery continued in operation until about 1820.

Late in the eighteenth, or early in the nineteenth, century Paul Cushman began the manufacture of salt glazed stoneware near Albany, N. Y. Numerous examples of his work have survived, several of them bearing the date 1809. The body is of a brownish tint and the decorations, which are usually scanty, are in cobalt blue. In many instances the name of the maker is scratched on the sides of jars, and occasionally inscriptions are found (see No. 39).

Other stoneware potteries were in operation in the United States previous to the nineteenth century. At Norwalk, Ct., salt glazed ware was being produced in 1780. At Morgantown, W. Va., and Huntington, N. Y., gray stoneware with blue decorations was made about 1800. John and William Norton, at Bennington, Vt., were turning out stoneware about the same time, while at Norwich, Ct., similar ware was manufactured a few years earlier. At Utica, N. Y., a pale grayish stoneware has been made, in decorated utilitarian forms since about 1820.

The Pennsylvania Society for the Encouragement of Manufactures and the Useful Arts published the following advertisement in the *New Jersey Journal* at Elizabethtown, in its issue of January 25, 1792:—

"1. To such person as shall exhibit the best specimen of Earthenware or Pottery, approaching nearest to Queensware, or the Nottingham or Delf ware, of the marketable value of fifty dollars—a plate of the value of fifty dollars, or an equivalent in money.

At Strasburg, Va., stoneware potteries were in operation prior to the beginning of the nineteenth century. Solomon Bell, from Hagerstown, Md., established a stoneware [illegible] about the year 1842. Among the best pieces produced [illegible] early years of this factory is a large gray salt glazed stoneware jug, or fountain, with handles modelled in the semblance of serpents and human masks, surrounded by impressed [illegible] patterns. On the body are boldly painted tulip designs in rich blue, and the stamped mark of Solomon Bell (see No. 40). The [illegible] is still operated by the sons of the founders.

Charles Wingender & Brother are among the few potters in the United States who continue to produce the old-fashioned [illegible] gray salt glazed ware with blue and purple decorations. They served an apprenticeship in the potteries of Hohr, near Coblentz, in the Grenzhausen district, and their productions are similar to the wares now made in that section (see Nos. 44, 45 and 46).

Some of the old moulds which had been used in Germany for a century or more are still in use at their establishment in Haddonfield, N. J., while many of their best designs are original. Their beer steins, jardinieres, pedestals and water coolers are modelled after the old German forms, and compare favourably, both in decoration and in mechanical execution, with the modern imported ware of a similar nature. One of the most elaborate historical patterns which they have produced is a representation of the battle of Teutoberg Forest which took place in the year 9 A. D., in which Quintilius Varus led the Roman troops against the Germans, the latter being victorious. In this engagement the Roman army was completely destroyed, and Varus perished by falling on his own sword. This spirited rendering was originally used at the Hohr pottery, but has been remodelled for the Haddonfield factory (No. 45).

Salt glazed stoneware is manufactured extensively at the Charles Graham Chemical Pottery Works, Brooklyn, N. Y. Mr. Charles C. Benham, who for more than twenty-five years has been carving

and colouring designs in this body, has executed many beautiful pieces at these works, in a style not attempted elsewhere. The surface of the ware is carved in artistic patterns in low relief, coloured with a rich, deep blue and covered with salt glaze. His most recent pieces, such as drinking mugs, jugs and vases, are made of fine white clay (No. 47). He has also produced some large panels with painted decorations in cobalt colour, in the style of Holland Delft.

It was reserved for a woman, however, to breathe the breath of artistic life into the body of American stoneware, and under her deft touch, guided by refined instinct and inventive genius, the old utilitarian forms were converted into new and graceful shapes, and the crude blue colouring, which served for ornamentation, gave place to artistic designs in relief, always significant, harmonious and thoroughly appropriate. The honour of raising the humble manufacture of salt glazed ware in this country to a place beside the finer ceramic arts belongs to Mrs. S. S. Frackelton, formerly of Milwaukee, but now of Chicago. A fine example of her work is a large jar, now in the Museum collection, which was purchased at the Chicago Exposition in 1893. It is over two and a half feet in height, of the ordinary gray colour, supported by winged feline feet and ornamented with fruited olive branches in high relief and rich blue colouring (see No. 48).

The commoner varieties of stoneware are often lined with what is known as "Albany Slip," a bluish clay taken from the bed of the river near Albany, N. Y. This clay contains a large percentage of iron and forms a black or dark brown glaze of considerable hardness.

The stoneware of the United States shows the influence of the Rhenish potters. The imitation of the white salt glaze of England was never attempted in this country, so far as we are aware, unless, indeed, it should be hereafter demonstrated that the "white and chiney" ware which was manufactured at Burlington, N. J., between 1685 and 1691, by the agents of Dr. Daniel Coxe, of London, Proprietary and Governor of the Provinces of East and West Jersey, was in reality similar to the white stoneware produced by Thomas Miles, of Shelton, England, about the same time. It is within the range of probability that this first American white ware was glazed with salt, but thus far no pieces have been recognised. If any examples have survived to the present day, they must be sought for in the islands of Jamaica and Barbadoes, to which points, according to Dr. Coxe's statements, the greater portion of the output was shipped.

Recapitulation of Principal Features of Salt Glazed Stoneware.

Countries.	Body.	Glaze.	Decoration.	Shapes.
Germany, Flanders.				
Siegburg	White, dirty white or grayish white.	Very thin, glossy in patches or entirely absent.	Moulded in medallions or sheets and applied Scriptural and heraldic subjects. Dates, XVI Century.	Tall, cylindrical [illegible] and baluster-shape [illegible] Hand-finished at base, often crimped.
Raeren	Yellowish or brown.	Red-brown, metallic, heavy and smooth, often shaded or yellowish in places.	Moulded and applied. Subjects, Peasants' dances, Scriptural, etc., often accompanied by inscriptions. Dates, XVI Century.	Flagons or jugs with cylindrical bodies and long necks, etc.
Frechen.....	Brown.	Rich brown, heavy in places, accumulated or freckled in patches.	Moulded and applied. Grotesque masks, imitation coins, foliage and scroll work.	Greybeards and jugs [illegible] ings on base.
Kreussen.....	Dark rusty brown.	Thin and slightly glossy. Dark brown, of uniform colour.	Applied reliefs, figures of Apostles, busts, cherubs' heads, grapes, etc. Large, unglazed circles on base. Later period, reliefs of Apostles, heads, hunting scenes, geometrical patterns, covered with coloured enamels and frequently gilded. Dates, XVII Century.	Low, broad mugs, [illegible] jugs of [illegible] etc.
Grenzhausen Hoehr	Gray or bluish gray.	Gray, heavy and granulated, covering all parts.	Applied reliefs, incised [illegible] and stamped patterns. Cobalt blue, purple, brown [illegible]	[illegible]
Coblentz				
Altenburg	White or yellowish.	White and regular. Frequently covered with a thin wash of tin enamel.	Small a[illegible] quently [illegible] mounte[illegible] foot an[illegible]	[illegible]

Bouffioux	Brown; later, gray.	Brown, irregular, in patches.	Crude, moulded masks, medallions, etc., in Frechen style. Blue enamel on early pieces.	Jugs, Greyhounds, large and small, barrels, rude tankard ornament. Handles frequently terminating at lower end in points, or "thumb" rests.
Beauclos	Gray.	Regular and even, of a bright reddish-brown colour and bronze lustre.	Moulded and applied ornaments of yellowish-white clay.	Jars and jugs, [illegible] lipped, usually with pointed base and foot.
Deuhausen	Dark red.			Jugs of lobster shape with numerous prunted and moulded rings.
ENGLAND.				
Fulham	Brown and gray.	Rich brown, mottled or freckled where colour has accumulated, like Frechen ware. Later, gray in Grenzhausen style.	Applied reliefs, and stretched ornaments, masks, arms, monograms, etc. Later, blue and purple enamels in Grenzhausen style.	Figures and busts, imitating bronze. Greyhounds, spherical jugs, etc., after Frechen forms. Mugs and globular jugs, in Grenzhausen manner.
Staffordshire.....	White, translucent in thin places.	Rather heavy, granulated and evenly distributed.	Moulded and applied reliefs; cast in carved moulds; scratched designs filled with blue colour; designs painted in coloured enamels over the glaze; printed engravings, over glaze; openwork and basket patterns.	Plates, dishes, teapots, bottles, jars, vases, figures, table services, etc.
Nottingham	Yellow.	Smooth, red brown, metallic, not granulated.	Scratched or incised designs, sometimes dated.	Mugs, jugs, tankard cups, loving cups, etc.
Lambeth.....	Yellow.	Upper part brown, lower portion buff.	Applied reliefs, hunting and drinking scenes, in buff clay.	Jugs with pinched lips, loving cups, mugs, etc.
Doulton.....	Yellow.	Panels of salt glaze and sections and bands of plain enamel colours and reliefs.	Etched or scratched [illegible] glaze; combination of enamel bands, jewelled or beaded work, in various colours.	Vases, decanters, drinking cups, jugs and numerous decorative forms.
UNITED STATES.	Brown or gray.	Brown and bluish gray. Heavy, uniform and distinctly granulated.	Etched and cobalt blue designs, crudely executed. Applied reliefs.	Jugs, jars, tankards, mugs, bottles, flagons, water coolers, and drinking vessels and plates, [illegible]

INDEX

Adams, William, 22
Aix-la-Chapelle, 7
Albany, N. Y., 25, 27
Albany Slip, 27
Altenburg, 7
Apostles, 11, 12

Baluster jugs, 7
Barbadoes, 27
Barlow, Arthur E., 23
Barlow, Florence, 23
Barlow, Hannah E., 23
Barrel-shaped vessels, 11, 15
Bartmanns, 10, 11, 12, 14, 15
Base, crimped, 7
  unglazed circle, 12
  wire marked, 10, 12
Basket work, 20, 22
Bauerntanz-Krüge, 8
Bear jugs, 20
Belgium, 14
Bell, Solomon & Samuel, 26
Bellarmine, 10, 11, 15, 18, 24
Benham, Charles C., 26
Bennington, Vt., 25
Biblical subjects, 6, 7
Blue salt glaze, 21
Bonn, 6
Boston Museum, 13, 15
Bouffioux, 14
Brampton, 20
Brooklyn, N. Y., 26
Brown stoneware, 7–12, 14–16, 24
Bunzlau, 16
Burlington, N. J., 27
Burton, William, 19
Butler, Frank A., 23

Calver, W. L., 24
Canettes, 6, 10, 14
Cast salt glaze, 21, 25
Champlevé decoration, 13
Chapelle-des-Pots, 17
Chatelet, 14
Chesterfield, 20
Chicago, Ill., 27
Church, Prof. A. H., 20
Coblentz, 12, 26
Coin-like medallions, 11
Cologne, 5, 6, 9, 18, 19
Continental stoneware centres, 16
Cone, Dr. Daniel, 27
Crich, Derbyshire, 17
Crimped base, 7
Cruikshank, Charlotte, 25
Crouch ware, 17
Cruche, 12
Cushman, Paul, 25

Decorations, chrysoidal, 13
  enamel colours, 12, 13, 14, 17, 18, 20, 21
  incised, 13, 14, 18, 20, 23
  incuse, 14
  moulded, 6, 11, 13, 16, 20
  painted, 12, 21, 22
  printed, 22
  scratched, 21, 23, 24, 25
  sunken, 13
Delft, 24, 25, 27
Doulton, John, 23
Doulton ware, 23
Dreyhausen, 16
Drug jars, 11, 15
Dwight figures, 18
Dwight, John, 18

Elers Brothers, 18
Enamel colours, 12, 13, 14, 17, 18, 19, 20, 21, 23
England, 17–23

Flanders, 5, 8, 14, 19, 20
Frackelton, Mrs. S. S., 27
France, 16, 17
Frechen, 9, 10, 11, 13, 24
Frey, S. L., 24
Fulham, 17, 18, 19, 23

Georgian Era, 13, 14, 18
Germany, 6–16, 20, 24
Gilling, 12, 18
Glaze, blackish, 8
  farraginous, 16, 20
  freckled, 10, 17
  granulated, 15, 17
  metallic, 8, 20
  red, 16
  red brown, 8, 9, 20
  rusty brown, 12
  smooth and glossy, 8, 20
  thin and dry, 7, 11
Graham, Charles, Works, 26

UNIV. OF MICH.
NOV 14 1907

DO NOT REMOVE
OR
MUTILATE CARDS